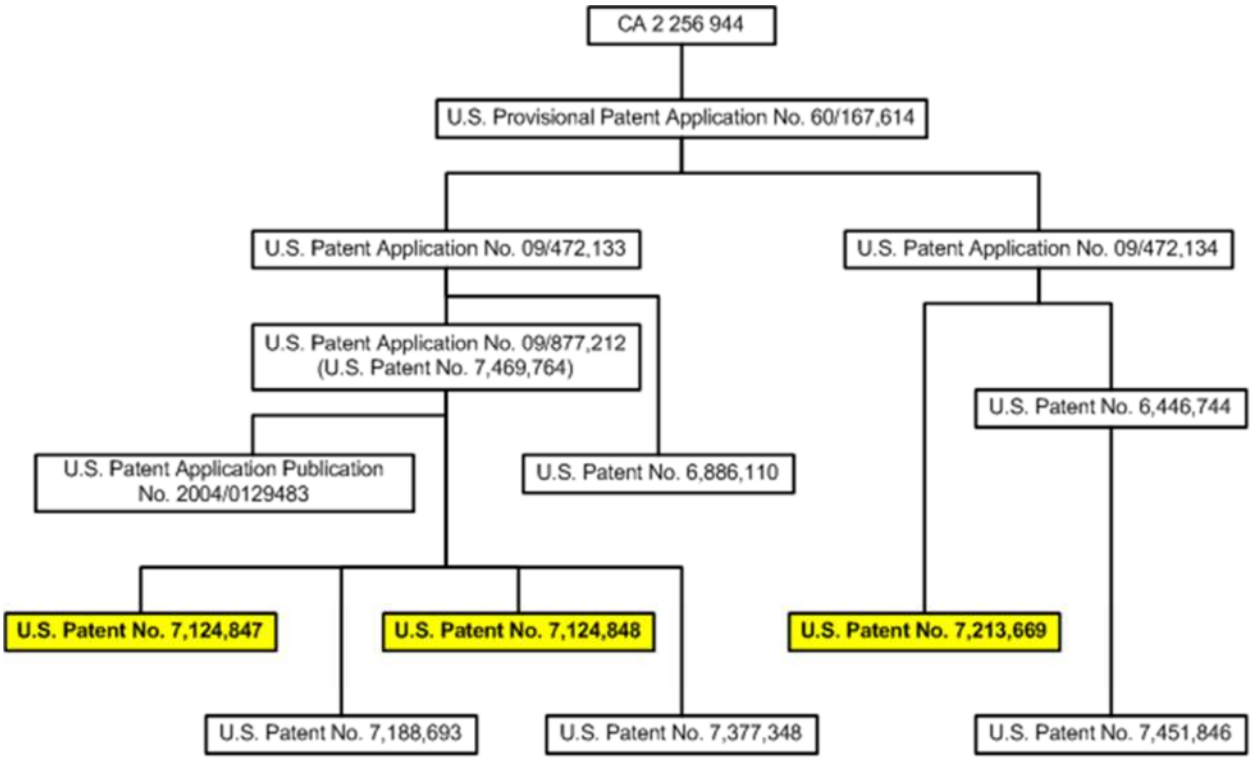
IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MINNESOTA

BOMBARDIER RECREATIONAL PRODUCTS INC. and BRP US INC., Plaintiffs, **v.** **ARCTIC CAT INC. and ARCTIC CAT SALES INC.,** Defendants.	Civ. No. 12-2706 (MJD/LIB) **PLAINTIFFS' OPENING CLAIM CONSTRUCTION BRIEF**

Plaintiffs (collectively "BRP") contend that Defendants (collectively "AC") willfully infringed U.S. Patents Nos. 7,124,847, 7,124,848, and No. 7,213,669 directed to snowmobiles, *i.e.*, vehicles for travelling over snow.

The three asserted patents are part of a family tree of related patents that stem from original 12/23/1998 Canadian Application 2256944 (the "Canadian Application"):



The '847 and '848 patents have identical specifications.[1] Each of the Asserted Patents incorporates by reference the disclosure of the Canadian Application.

[1] All specification references will be to the '847 patent and refer to it as the "'847/'848 Specification." Citations to column and lines of the specifications of patents hereinafter follow the convention "column:line(s)".

A. '847/'848 Frame Patents

The structural core of all snowmobiles is a frame, which typically includes at least a rear tunnel to support and cover a drive track and an engine cradle forward of the tunnel. The frame carries the functional snowmobile components.

A snowmobile frame is subjected to torsional and bending shock forces when the snowmobile traverses obstacles while traveling over snow-covered terrain. Prior to BRP's inventions, the industry historically strengthened and rigidified frames to better resist these shock forces by using more and heavier gauge metal. This resulted in heavier, slower, and less maneuverable snowmobiles.

Instead of bulking up the frame, BRP made it lighter and reduced the shock forces on the frame by employing an overarching pyramidal assembly of left and right front and rear braces connected to the front and rear of the frame to distribute shock forces to and through the apex thereby subjecting the frame to less stress.

BRP's '847/'848 patent claims were written to obtain broad protection for snowmobiles having a pyramidal brace assembly. Thus, the claims refer to the other components of the snowmobile in broad, generic terms without reciting unnecessary limiting structure.

B. '669 Rider Positioning Patent

Conventional snowmobiles were constructed so that the driver sat generally upright at a location toward the rear of the snowmobile with his/her legs extending

forwardly. JA000524[2] (1:24- 27; Fig. 1). This placed the driver's center of gravity ("CG") a considerable distance behind the snowmobile's CG, which is located in close proximity to the forward-most drive track axle. *Id*. (1:27-31).

The BRP inventors repositioned the driver to a more forward position, *e.g.,* closer to the snowmobile's CG, so that the rider's legs did not extend forwardly. By shortening the distance between the driver's and the vehicle's CG, the BRP inventors achieved at least two important benefits: (1) reducing the magnification of forces transferred from bumps to the driver; and (2) increasing the vehicle's turning capability and maneuverability. JA000525 (3:61 – 4:3). The claims capture this innovation in snowmobile control and riding experience by reciting specific spatial relationships between the engine, the steering shaft, the handlebar steering grips, the seat position, and the forward-most drive track axle.

II. CLAIM CONSTRUCTION LAW

Claims are generally given their plain and ordinary meanings to skilled artisans as of their effective filing dates in view of intrinsic evidence. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (*en banc*). There are two exceptions: (1) when a patentee acts as his own lexicographer and sets out a special definition; and (2) when the patentee disavows the full scope of the claims either in the specification or the prosecution history. *Hill-Rom Servs. Inc. v. Stryker Corp.*, 755 F.3d 1367, 1371 (Fed. Cir. 2014).

[2] "JA" refers to the Joint Appendix prepared by the parties.

Intrinsic evidence is the patent's public record. *See Phillips*, 415 F.3d at 1314-15. The intrinsic evidence includes the patent's claims, specification, and prosecution history. *Id.*

"When an analysis of *intrinsic* evidence resolves any ambiguity in a disputed claim term, it is improper to rely on extrinsic evidence to contradict the meaning so ascertained." *Intel Corp. v. Via Techs., Inc.*, 319 F.3d 1357, 1367 (Fed. Cir. 2003) (emphasis in original);[3] *Advanced Fiber Tech. Trust v. J&L Fiber*, 674 F.3d 1365, 1374-75 (Fed. Cir. 2012) (reversal for "reliance on extrinsic evidence that contradicted the patent's specification, including the claims and written description.") "Only if there were still some genuine ambiguity in the claims, after consideration of all available intrinsic evidence, should the trial court have resorted to extrinsic evidence…." *Intel*, 319 F.3d at 1367. Extrinsic evidence is any evidence outside the patent's public record that sheds light on the meaning of a claim to a skilled artisan at the relevant time. *See Plant Genetic Sys., N.V. v. Dekalb Genetics Corp.*, 315 F.3d 1335, 1346 (Fed. Cir. 2003)

III. CONSTRUCTION OF DISPUTED TERMS/PHRASES/CLAUSES

A. "FRAME"

Patent	Claims	BRP's Construction	AC's Construction
'847 Patent	1, 7 & 9-15	"the structural core of the snowmobile that holds, carries, or supports the other components"	"structures consisting of the engine cradle, the tunnel, and the sub-frame"
'848 Patent	1 & 7		
'669 Patent	80, 87, 88, 97 & 116		

[3] All emphasis is added unless otherwise indicated.

Intrinsic Evidence

As recited in the '847/'848 patent claims and specification, the "frame" is the structural core of the snowmobile that holds, carries, or supports the other snowmobile components. The '847/'848 claims recite that other snowmobile components are "mounted in," "supported by," "disposed on," or "connected to" the frame, or to the structures that make up the frame, *i.e.*, the "tunnel," the "engine cradle" and, where recited, the "sub-frame:"

- "an engine mounted in the engine cradle" ('847/'848 Patents, Claim 1)
- "a drive track…supported by the tunnel" ('847/'848 Patents, Claim 1)
- "left and right skis disposed on the frame" ('847 Patent, Claim 1)
- "a straddle seat disposed on the tunnel" ('847/'848 Patents, Claim 1)
- "a pair of footrests supported by the frame" ('847/'848 Patents, Claim 1)
- " a steering column moveably connected to the frame …" ('847/'848 Patents, Claim 1)
- "left and right suspension arms pivotally connected to the sub-frame . . ." ('847 Patent, Claims 9-15; '848 patent, Claim 1)
- "the left and right skis are disposed on the frame via a connection to the respective suspension arm." ('847 Patent, Claims 9-15)

JA000042-43. "In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves… ." *Riverwood Int'l Corp. v. R.A. Jones & Co., Inc.*, 324 F.3d 1346, 1357 (Fed. Cir. 2003). The '847/'848 Specification discloses that the snowmobile's frame is its structural core, as together with its

suspensions, it absorbs shock forces generated when the snowmobile encounters obstacles in varius snow environments:

> [S]nowmobiles are designed with frame assemblies and suspensions that easily absorb the shock of obstacles encountered on groomed trails and on deep snow.

JA000036 (1:49-54). The patents further disclose that the "frame assembly," which includes the "pyramidal brace assembly connected to the frame," provides the strength and rigidity to carry loads:

> [T]he structure of frame assembly 84, 190, 191 enhances the torsional and structural rigidity of the ***frame*** of the vehicle.
>
> * * *
>
> [F]rame assembly 84, 190, 191 has at least one further advantage in that the ***frame*** can be made lighter and stronger than prior art frame assemblies. . . . ***Because frame assembly 84, 190, 191 adds strength and rigidity to the overall construction and absorbs and redistributes many of the forces encountered by the frame*** of the vehicle, the panels that make up the tunnel 86 and the engine cradle 88 need not be as strong or as thick as was required for the construction of frame assembly 52.

Id. (13:46 – 14:4).

Therefore, the intrinsic evidence supports BRP's construction of the "frame" as referring to the "structural core of the snowmobile that holds, carries, or supports the other components."

B. "pyramidal brace assembly connected to the frame"

Patent	Claims	Plaintiffs' Constructions	Defendants' Constructions
'847 Patent	1	"a pyramid-like structure formed from converging force-transmitting legs, all of which are connected to the frame and terminate at a common apex so as to transmit forces generated at the front and rear of the snowmobile to and from the apex thereby enhancing the frame's rigidity and strength to resist torsion and bending"	"a brace assembly with a pyramidal shape connected to the frame"
'848 Patent	1		

1. Context

This disputed clause is part of the following larger limitation in '847/'848 patent claim 1:

> a ***pyramidal brace assembly*** connected to the frame, the assembly including:
>
> left and right rear legs extending forwardly and upwardly from the tunnel, each of the left and right rear legs having a front end and a rear end, the rear ends of the rear legs being spaced further from each other than the front ends of the rear legs, and
>
> left and right front legs extending rearwardly and upwardly from the frame forward of the tunnel, each of the left and right front legs having a front end and a rear end, the front ends of the front legs being spaced further from each other than the rear ends of the front legs.[4]

[4] As is evident, claim 1 uses the term "legs" to refer to the "braces" of the "pyramidal brace assembly." Unless quoting from the patent, these elements will hereafter be referred to as "braces/legs."

In contrast to AC's construction, which which will be of no help to the jury as it does not construe any of the terms in the disputed clause, BRP's construction gives effect to each and every term in accordance with Federal Circuit precedent. *See Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) ("claims are interpreted with an eye toward giving effect to all terms in the claim").

2. Intrinsic Evidence

The first term in the clause at issue is "pyramidal." BRP's construction defines "pyramidal" as a "pyramid-like structure." That is the plain and ordinary meaning of "pyramidal." JA0015007; JA0015036.

BRP's construction of the phrase "brace assembly" is that the pyramid-like structure is "formed from converging force-transmitting legs, all of which are connected to the frame and terminate at a common apex." The pyramid-like shape of the brace assembly as well as the fact that it is formed from converging braces/legs that are connected to the frame (at its front and rear) and terminate at a common apex is shown in red in patent Figs. 14, 19-22, 26-28 and 30 reproduced below.

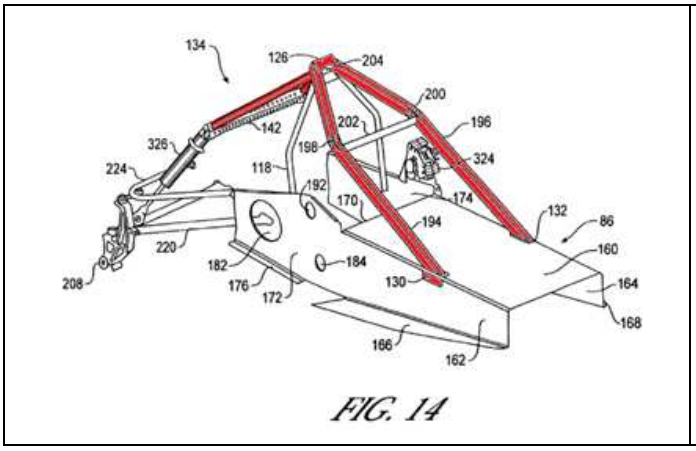


FIG. 14

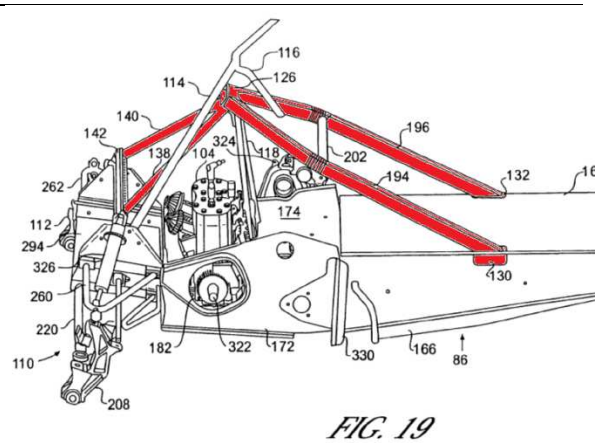


FIG. 19

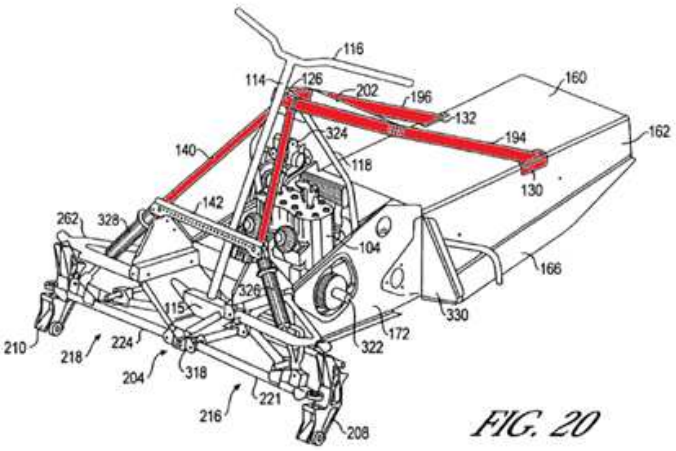


FIG. 20

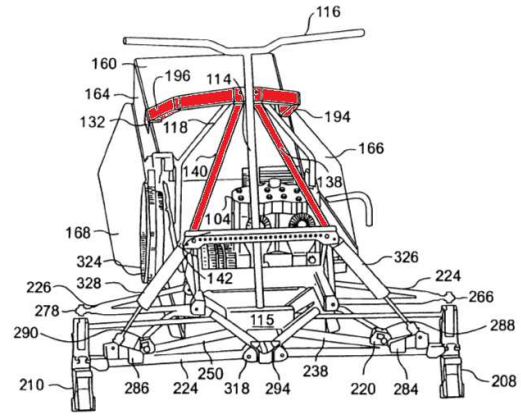


FIG.21

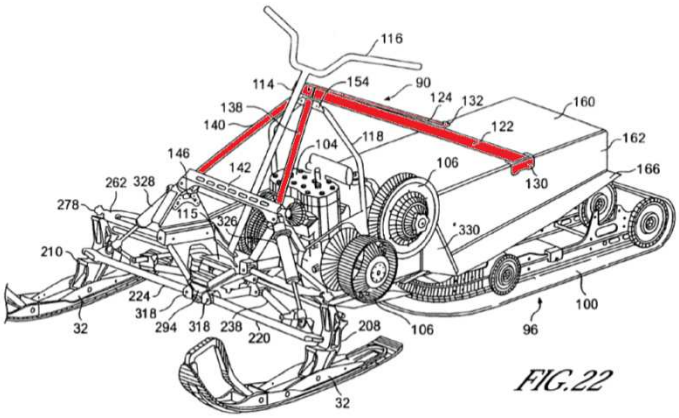


FIG.22

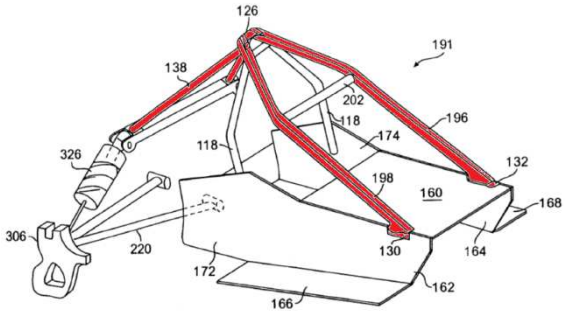


FIG. 26

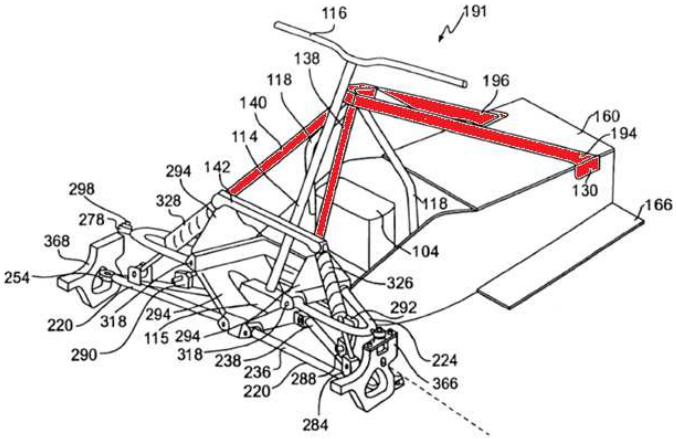


FIG. 27

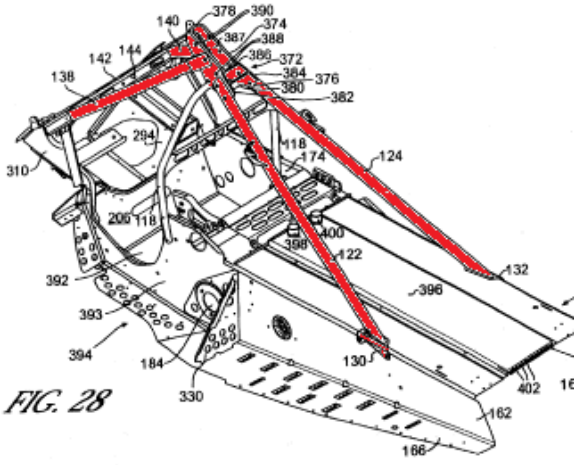


FIG. 28

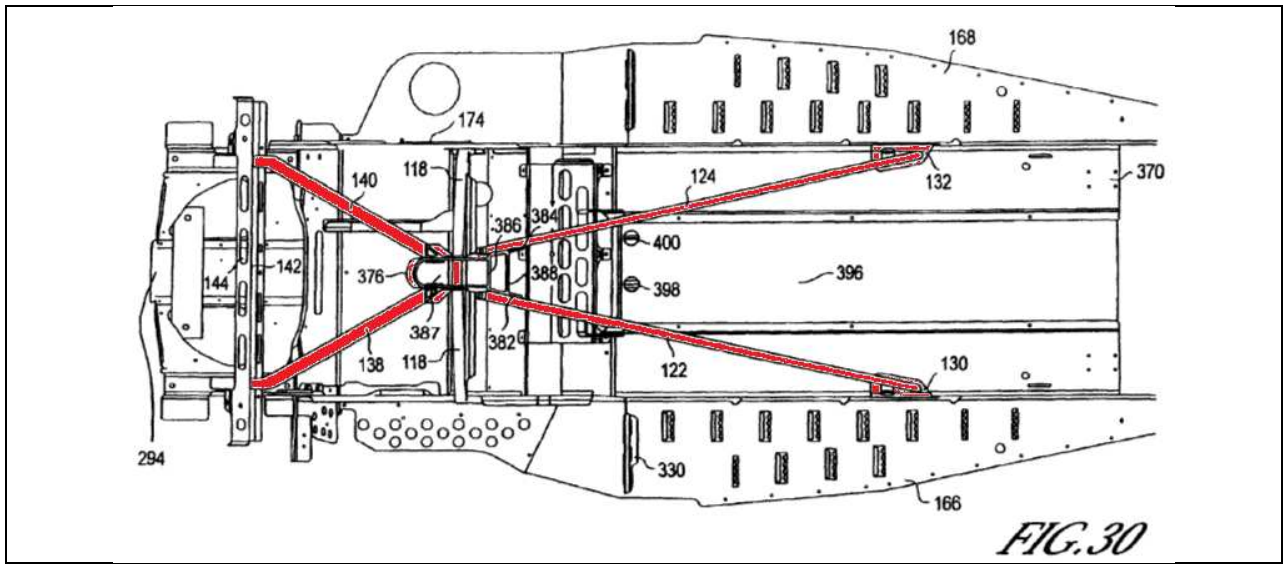


FIG. 30

JA000014; JA000019-22; JA000026-30. As shown, the rear pair of braces/legs are attached about midway along the longitudinal corners of the tunnel at the rear of the frame while the front pair of braces/legs are attached to the front of the frame. The four braces/legs extend upwardly from the frame in a converging manner to terminate at a common apex. The specification describes the pyramidal structure:

> ***A rear brace assembly is attached to the tunnel*** at a point between its front and rear ends ***and extends upwardly therefrom. A forward support assembly is attached to the rear brace assembly and extends forwardly and downwardly therefrom.*** In a further variation of this frame assembly, the rear brace assembly comprises a left and a right leg and the forward support assembly comprises a left and a right leg. ***The left and right legs of the rear brace assembly and the forward support assembly connect to one another at an apex to form a pyramidal structure above the tunnel and engine cradle.***

JA000037 (3:24-34). Consistent with pyramidal structures, each adjacent pair of braces/legs form a geometric shape that is generally triangular.

> Each of the main components of the frame assembly 84, 190, 191 forms a triangular or pyramidal configuration.

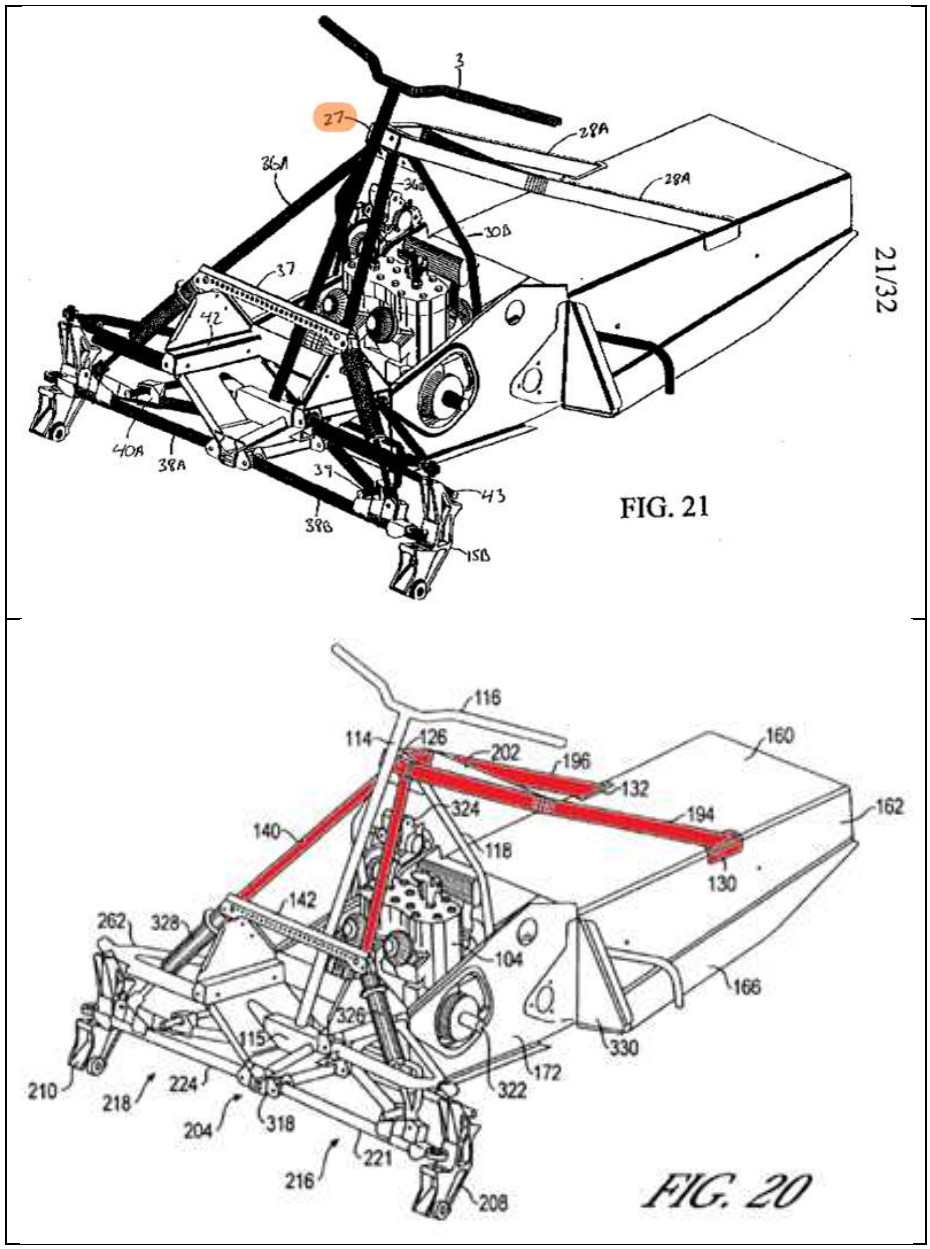
JA000042 (13:37-8).

The existence of a common "apex" is implicit in and necessary to give life and meaning to the phrase "pyramidal brace assembly." The uppermost part of a pyramidal structure is its apex, also called "vertex." JA0015004 ("pyramid … anything have sides that taper to meet at the apex.") The common apex is necessarily a part of the pyramidal assembly of front and rear braces/legs. The common apex is necessary to distribute the forces between the front and rear braces/legs to enable the "pyramidal brace assembly" to "brace" the frame.

The necessity of a common apex is further supported by the '944 Canadian Application to which the '847/'848 patents claim priority and which those patents incorporated by reference. *See* JA000036 (1:11-15). The '944 Canadian Application reads:

> Most of the suspension force is transferred by way of a pyramidal structure to a common point, i.e., at cross-bar (27). The pyramidal structure of transmitted force from the suspension is more evident in Fig. 22.

JA00005474. The common point, or cross-bar 27, is depicted in Figure 21 of the '944 Canadian Application (JA00005499) and correlates with bracket 126 in Figure 20 of the '847/'848 patents (JA000020), which defines the "apex" of the illustrative "pyramidal brace assembly":



During prosecution of the '847/'848 patents' Parent '212 Application, the applicant in a July 25, 2005 Appeal Brief distinguished the prior art based on the absence of a "pyramidal" structure and a "common vertex" (apex) inherent in such structure:

> As shown in Figures 4 of the Hisadomi reference, the main frame 7 and the gusset 7c, which the Office Action equates to the claimed rear brace assembly and forward support assembly, respectively, ***do not form a pyramidal structure*** as recited in claim 20. Simply, the main frame 7 and the gusset

> 7c do not ***include … a common vertex.*** … ***Nothing in Figure 6 of the Marier et al. reference can be considered pyramidal as there is nothing that can be considered a common vertex***.

JA001871-1872. Thus, the prosecution history further supports BRP's construction calling for the legs of the pyramidal brace assembly to terminate at a common apex in order to transmit forces experienced at the front and rear of the snowmobile frame and thereby resist torsion and bending forces.

With respect to the reference in BRP's construction that the braces/legs are "force-transmitting," and "transmit forces generated at the front and rear of the snowmobile to and from the apex thereby enhancing the frame's rigidity and strength to resist torsion and bending," the specification further discloses that the braces/legs work only in tension and compression, without bending, and intersect at a common apex identified as the steering brackets:[5]

> All of the bars of the frame assembly 84, 190, 191 work only in ***tension and compression, without bending***. Therefore, ***each bar of frame assembly 84, 190, 191 intersects at a common point, the bracket 126 (in the non-variable steering geometry) or variable geometry steering bracket 374***. With this pyramidal shape, the present invention creates a very stable geometry.

JA000042 (13:38-45).

Braces/legs that work only in tension and compression, without bending, will transmit forces by their very nature. The specification describes how the braces/legs "transmit forces" from the front and rear of the vehicle to their common apex:

> [T]he forces experienced by left and right shock absorbers 326, 328 are transmitted to frame assembly 84, 190, 191. In

[5] The braces/legs are here referred to as "bars."

> the rear of the vehicle, the left and right braces 122, 124 are orientated with respect to the rear suspension. Upper column 118 is positioned close to the center of gravity of the vehicle's sprung weight. … The positioning of these elements such that ***they transmit forces encountered at the front, middle and rear of the vehicle to an apex*** creates a very stable vehicle that is capable of withstanding virtually any forces that the vehicle may encounter….

JA000042 (14:7-18).

The specification also discloses that the pyramidal brace assembly enhances the frame's rigidity and strength to resist torsion and bending:

> Specifically, ***the structure of frame assembly 84, 190, 191 enhances the torsional and structural rigidity of the frame of the vehicle. This improves handling.***

Id. (13:46-48).

> ***Not only does frame assembly 84, 190, 191 reduce torsional bending, it also reduces the bending moment from front to rear. The increased rigidity in both directions*** further improves handling.

Id. (13:56-59).

BRP's proposed construction captures the essence of the "pyramidal brace assembly" while giving meaning to each of its terms consistent with the intrinsic evidence. BRP's construction will help the jury understand what is meant by "pyramidal brace assembly."

C. "apex"

Patent	Claims	Plaintiffs' Constructions	Defendants' Constructions
'847 Patent	3, 6, 8, 10, 13, & 15	"uppermost part of the pyramidal brace assembly"	"the top of the structure formed by the front ends of the rear legs, the rear ends of the front legs and the upper column of the pyramidal brace assembly"
'848 Patent	3, 6-8		

1. Context

The term "apex" appears expressly in claims 3, 6, and 8 of the '847/'848 patents. Claim 3 recites: "The snowmobile of claim 1, wherein the legs of the pyramidal brace assembly form an apex not forward of the engine." Claim 6 recites: "The snowmobile of claim 1, wherein the rear ends of the front legs of the pyramidal brace assembly and the front ends of the rear legs of the pyramidal brace assembly are interconnected and form an apex not forward of the engine."

Claim 8 recites: "The snowmobile of claim 7, wherein the upper column forms the apex with the front ends of the rear legs of the pyramidal brace assembly and the rear ends of the front legs of the pyramidal brace assembly." In addition, Claim 1 of the '847/'848 patents implicitly calls for an apex since it recites a "pyramidal brace assembly" and every pyramid has an apex by definition.

2. Intrinsic Evidence

The specification of the '847/'848 patents make clear that when the claims say that the legs of the brace assembly "form an apex," they do not mean that the upper ends of the pyramidal brace assembly legs must actually touch each other as might be implied by AC's construction. The specification discloses that in each embodiment, there is a

separate structure at the apex which interconnects the upper ends of the legs as recited in claim 6.

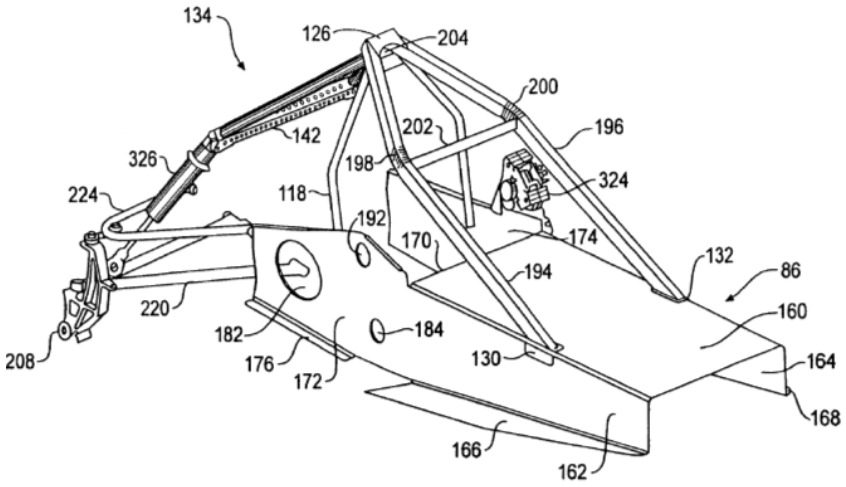


FIG. 14

> As with frame assembly 84, a bracket 126 is provided at apex 204 where left and right braces 194, 196 meet one another. Forward support assembly 134 is the same as depicted in FIG. 7.

JA000014; JA000040 (9:44-47).

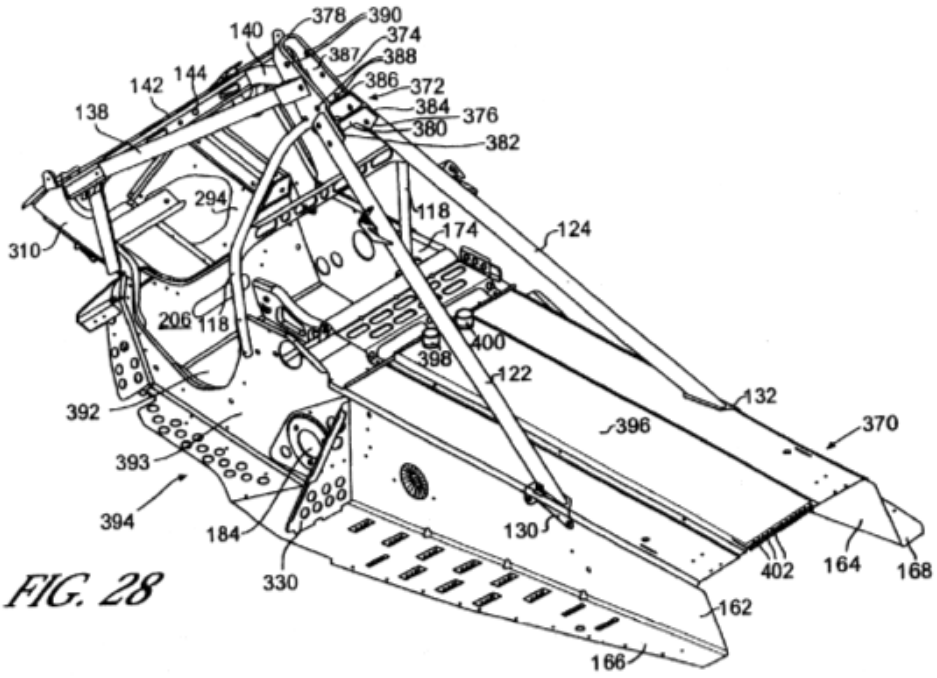


FIG. 28

> As illustrated in FIG. 28, left brace 122 and right brace 124 extend upwardly from tunnel 370 to apex 372 where they connect to variable geometry steering bracket 374. Upper column 118 extends from left engine cradle wall 393 and right engine cradle wall 174 and also connects to variable geometry steering bracket 374. Forward support assembly 134 extends from sub-frame 294 to variable geometry steering bracket 374.

JA000028; JA000041 (12:46-53).

> Therefore, each bar of frame assembly 84, 190, 191 intersects at a common point, the bracket 126 (in the non-variable steering geometry) or variable geometry steering bracket 374. With this pyramidal shape, the present invention creates a very stable geometry

JA000042 (13:40-45).

D. "upper column"

Patent	Claims	Plaintiffs' Constructions	Defendants' Constructions
'847 Patent	7-8 & 14-15	"an inverted U-shaped structure forming legs extending upwardly from the left and right sides of the frame intermediate the pairs of rear and front legs"	"an inverted U-shaped structure"
'848 Patent	7-8		

1. Context

The term "upper column" appears in claims 7 and 8 of the '847/'848 patents. Claim 7 recites: "The snowmobile of claim 6, further comprising an upper column extending upwardly from the frame." Claim 8 recites: "The snowmobile of claim 7, wherein the upper column forms the apex with the front ends of the rear legs of the pyramidal brace assembly and the rear ends of the front legs of the pyramidal brace assembly."

While BRP and AC agree that the "upper column" is an inverted U-shaped structure, only BRP's construction defines the structure as having legs on the left and right sides of the frame and where they connect to the frame relative to the pairs of front and rear legs of the pyramidal brace assembly.

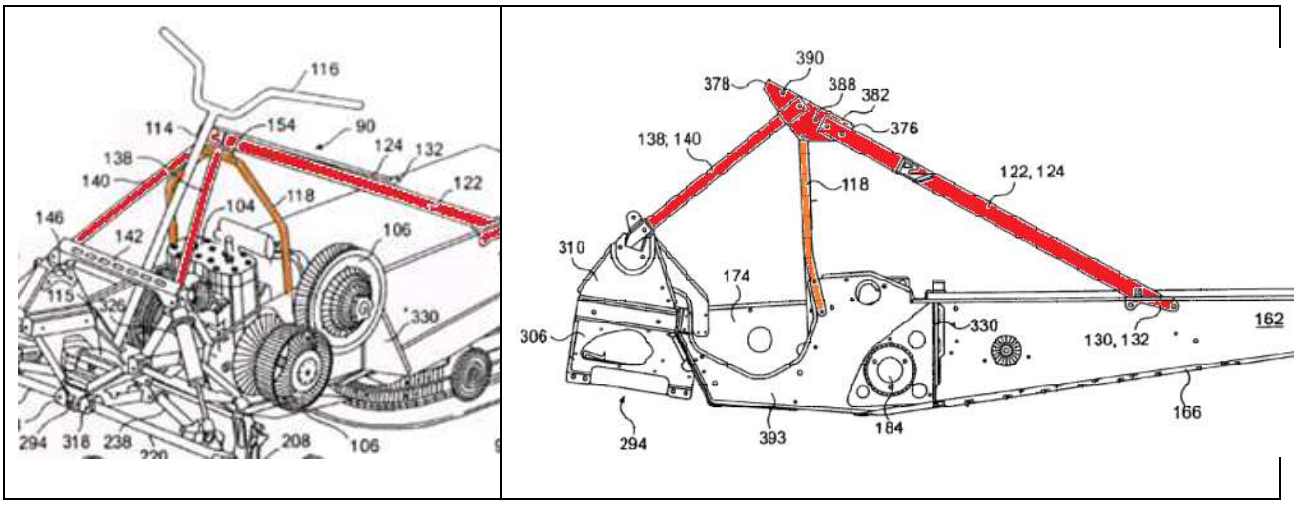
2. Intrinsic Evidence

The '847/'848 Specification describes the upper column as having left and right legs that extend upwardly from (or downwardly to) the left and right sides of the frame:

> Upper column 118 has left and right legs 148, 150 that ***extend downwardly from an apex*** 152. A bracket 154 is disposed at apex 152 for connection to bracket 126 of frame assembly 84. . . . Left and right legs 148, 150 preferably attach to engine cradle 88 via bolts or other suitable fasteners.

JA000039 (8:47-58).

The pyramidal brace assembly also has a pair of left and right front legs and a pair of left and right rear legs, all of which extend downwardly from the common apex to connect to the frame. The patent illustrates that the legs of the upper column (orange) connect to the frame intermediate the places where the front and rear pyamidal brace assembly legs (red) connect to the frame:



JA000022 (Fig. 22); JA000029 (Fig. 29). The patent specification details that "another object of the present invention" is "to provide a frame assembly wherein the forward support assembly, the upper column, and the rear brace assembly connect at an apex above the upper column." JA000036 (2:64-67). For the apex formed by the pairs of front and rear legs to be "above the upper column," then the upper column must be intermediate the pairs of legs.

The specification teaches the importance of the upper column legs being located intermediate the pairs of front and rear legs of the pyramidal brace assembly close to the center of gravity of the snowmobile:

> ***In the front of the vehicle***, left and right shock absorbers 326, 328 are connected to forward support assembly 134 so that the ***forces experienced by left and right shock absorbers 326, 328 are transmitted to frame assembly*** 84, 190, 191. ***In the rear of the vehicle***, the left and right braces 122, 124 are oriented with respect to the rear suspension. ***Upper column 118 is positioned close to the center of gravity of the vehicle's sprung weight. … The positioning of these elements such that they transmit forces encountered at the front, middle and rear of the vehicle to an apex creates a very stable vehicle*** that is capable of withstanding virtually any forces that the vehicle may encounter during operation without sacrificing vehicle performance.

JA000042 (14:5-18). Therefore, the patent teaches the necessity of positioning the upper column so that its legs are connected to the frame intermediate the front and rear legs.

E. "engine cradle"

Patent	Claims	Plaintiffs' Construction	Defendants' Construction
'847 Patent	1	"the part of the frame that supports the engine"	"a substantially integral structure including at least a bottom plate and left and right side walls"
'848 Patent	1		

1. Context

The "engine cradle" is a basic component of the frame recited in Claim 1 of the '847/'848 Patents. "Engine cradle" is a generic term of art that can only be properly construed by defining what it is and does, *viz*., "the part of the frame that supports the engine." In contrast, AC replaces the generic "engine cradle" with a narrow description improperly limiting the claims to the structure of the preferred embodiments.

2. Intrinsic Evidence

The claim language is first in the hierarchy of intrinsic evidence on which claim construction is based. *Riverwood*, 324 F.3d at 1357. "It is the claims that define the

metes and bounds of the patentee's invention. ***The patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning*** unless the patentee explicitly redefines the term or disavows its full scope." *Thorner*, 669 F.3d at 1367. Here, BRP chose to use the broad term, "engine cradle," to obtain broad claim scope generic to engine cradles regardless of their structure.

Further intrinsic evidence supporting BRP's generic construction of "engine cradle" is the fact that in another patent in the family, BRP claimed the engine cradle by specifying the structural configuration of the patent embodiments. In related U.S. Patent 6,446,744, the claims specify precisely what AC wants the Court to import into the "engine cradle" phrase of the '847/'848 claims: (1) "a left side wall and a right side wall; (b) "a front wall connected between forward portions of the left and right side walls; and (c) "a bottom panel connected between bottom portions of the front, left side, and right side walls." JA005562 (16:10-23). That the inventors chose to claim an engine cradle structure having side walls and a bottom plate in a patent other than the '847/'848 patents is dispositive. *See Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1333 (Fed. Cir. 2010) (holding no basis existed to read "hybridization" into claims of '928 patent because "applicants knew how to claim a linkage group that does not substantially interfere with hybridization, as they did in the '824 and '767 patents, but specifically omitted that language from the claims of the related '928 patent.")

Additional intrinsic evidence supporting BRP's construction of "engine cradle" as a generic term not limited to structures having side walls and a bottom plate is found in the prosecution history of the parent '212 application of the '847/'848 patent

applications, which issued as Patent 7,469,764. During its prosecution, BRP submitted claim 17 containing essentially the identical "engine cradle" language at issue here, *viz.*, "***an engine cradle*** disposed forward of the tunnel." JA001721 (10/25/2002 Preliminary Amendment and Reply To Restriction Requirement). The Examiner rejected claim 17 as anticipated by BRP's Talbot Patent 4,620,604:

> ***Talbot discloses*** a frame having a tunnel 15, ***an engine cradle*** (35 and 36), a rear brace assembly (the rear part of element 32), an upper column 34, a track 14 and skis 12.

JA001731 (Non-final Office Action at p. 4). The engine cradle elements 35 and 36 are highlighted in the Talbot drawings:

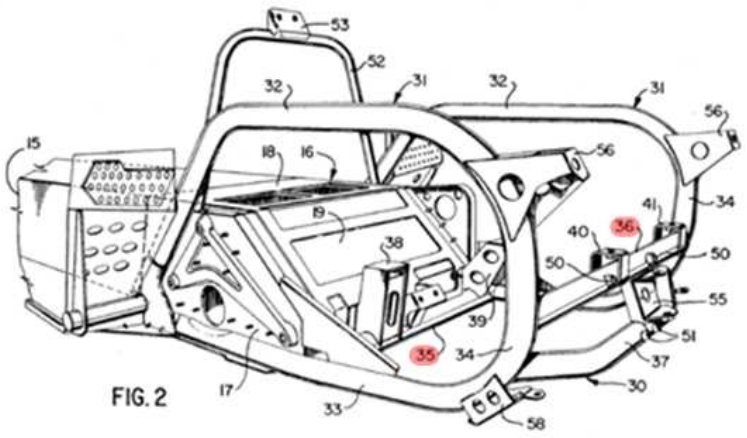


FIG. 2

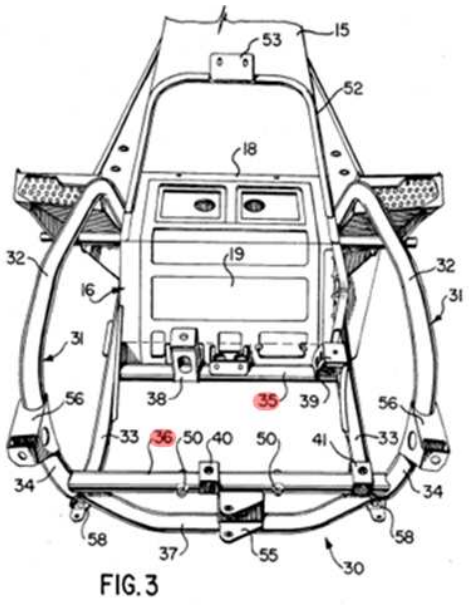


FIG. 3

JA002035-37 (Talbot, 2:30-40; Figs. 2-3). As shown, the engine cradle is an open tubular framework having no sidewalls or bottom plate. Thus, the USPTO recognized that the phrase "engine cradle" was generic and did not require side walls and a bottom plate.[6]

"Statements about a claim term made by an examiner during prosecution of an application may be evidence of how one of skill in the art understood the term at the time the application was filed." *Salazar v. Proctor & Gamble Co.*, 414 F.3d 1342, 1347 (Fed. Cir. 2005). Thus, this intrinsic evidence further supports BRP's construction of "engine cradle." *See Ventana Med. Sys. v. Biogenex Labs., Inc.*, 473 F.3d 1173, 1183 (Fed. Cir. 2006) (examiner's understanding of breadth of claim term supported broader construction); *Toshiba Corp. v. Imation Corp.*, 681 F.3d 1358, 1370-71 (Fed. Cir. 2012) (examiner's understanding further supported not construing term narrowly).

[6] BRP took no issue with the Examiner's finding. JA001745 (3/12/2003 Amendment, p. 5).

BRP's related Patent Application Publication 2004/0129483 is additional intrinsic evidence that BRP's claimed generic "engine cradle" did not require side walls and a bottom plate. Fig. 5 from that patent shows an open framework engine cradle 330 having no side walls or bottom plate.

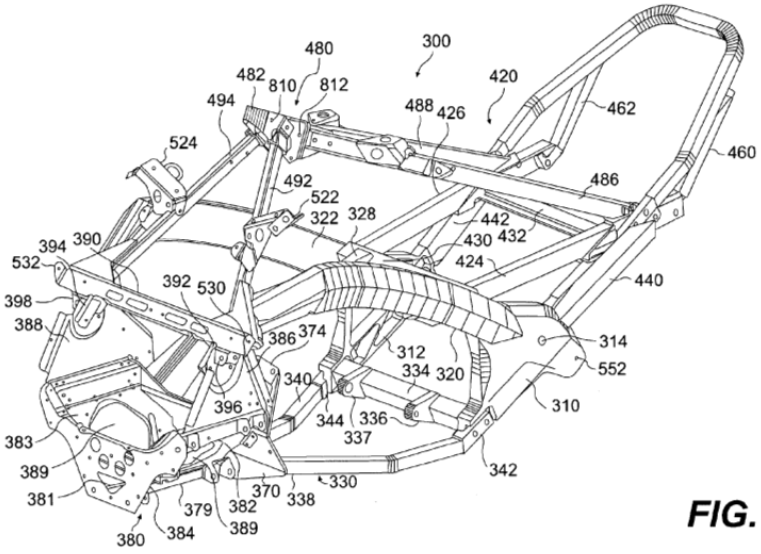


FIG. 5

JA006563; JA006579 (¶[0061]).

3. Extrinsic Evidence

Well-respected technical dictionaries show that "engine cradle" has long been defined as a generic term of art. The Dictionary of Science and Technology defines "engine cradle" as a "framework that carries, supports, or restrains material or engines." JA0015003. The McGraw-Hill Dictionary of Scientific and Technical Terms defines "cradle" as a "framework or other resting place for supporting or restraining objects." JA0015010. When a claim term is used in a technical context, as here, "a technical dictionary is … a better source to inform the meaning of the term to a skilled artisan… ." *Transclean Corp. v. Bridgewood Serv., Inc.*, 290 F.3d 1364, 1374-75 (Fed. Cir. 2002).

F. "a straddle seat disposed on the tunnel above the drive track and rearward of the engine"

Patent	Claims	Plaintiffs' Construction	Defendants' Construction
'847 Patent	1	"a straddle seat arranged so that it is carried by the tunnel above the drive track and rearward of the engine"	"a straddle seat placed directly on the tunnel above the drive track and rearward of the engine"
'848 Patent	1		

The clause, "a straddle seat disposed on the tunnel above the drive track and rearward of the engine," is one of two clauses selected as representative of seven disputed clauses in the asserted patents that contain the phrase "disposed on."[7] The meaning of "disposed on" is where the dispute lies.

Intrinsic Evidence

Contrary to AC's construction of "disposed on" as meaning "placed directly on," the phrase "disposed on" can only have a generic meaning encompassing a component of a snowmobile being "carried by" its frame, which encompasses direct or indirect contact. That generic construction is necessitated by use of "disposed on" in claims which refer to components that are not "placed directly on" the frame, but instead are indirectly carried by the frame via intervening structures. This is best illustrated by another claim phrase before the Court, "the left and right skis are ***disposed on the frame via a connection to the respective suspension arm.***" The below drawing figures show that the skis (blue) are

[7] One of the represented clauses, "straddle-type seat disposed on the frame…" from the '669 patent, is, for all practical purposes, identical to the "straddle seat disposed on the tunnel" clause of the '847/'848 patents.

carried by the frame via a connection by ski legs (red) to intervening suspension arms (red).

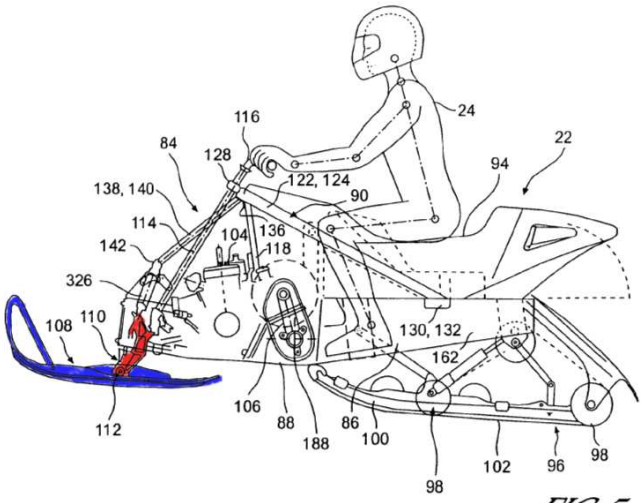


FIG.5

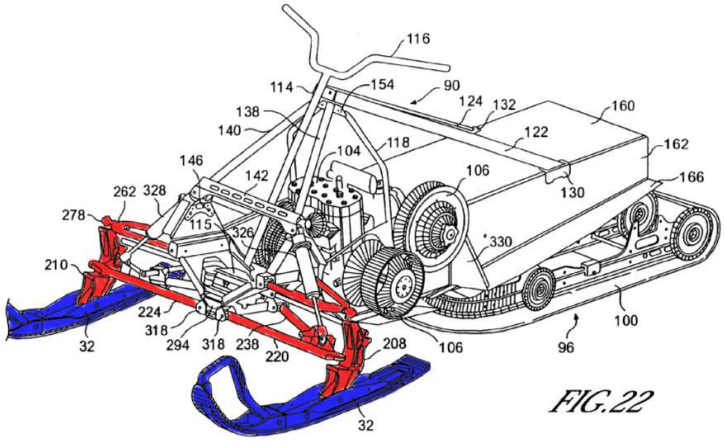


FIG.22

Since the phrase "disposed on" in the clause "left and right skis are disposed on the frame via a connection to the respective suspension arm" cannot possibly mean "placed directly on," the same phrase cannot mean "placed directly on" when used in the limitation, "a straddle seat disposed on the tunnel." *See, e.g.*, *Digital-Vending Servs. Int'l, LLC v. Univ. of Phoenix, Inc.*, 672 F.3d 1270, 1275 (Fed. Cir. 2012) (claim term used throughout claims presumed to have the same meaning); *Omega Eng'g, Inc. v. Raytek Corp.*, 334

F.3d 1314, 1334 (Fed. Cir. 2003) ("we presume, unless otherwise compelled, that the same claim term in the same patent or related patents carries the same construed meaning."); *Paragon Solutions, LLC v. Timex Corp.*, 566 F.3d 1075, 1087 (Fed. Cir. 2009) ("We apply a 'presumption that the same terms appearing in different portions of the claims should be given the same meaning unless it is clear from the specification and prosecution history that the terms have different meanings at different portions of the claims.'")

Recognizing the forgoing consistency doctrine, AC is forced to admit that the clause, "the left and right skis are ***disposed on the frame via a connection to the respective suspension arm***," is incompatible with its construction of "a straddle seat disposed on the tunnel" as meaning "a straddle seat placed directly on the tunnel." Thus, when it came to the former clause, AC refused to construe it, stating: "A claim in this patent with this claim phrase is indefinite in view of other constructions." *See* ECF Dkt. No. 360-2 at 11-18.

AC has it backwards. Instead of declaring "the left and right skis are ***disposed on the frame via a connection to the respective suspension arm***" indefinite, AC should have changed its construction of "disposed on" in the "straddle seat" clause and others to recognize that "placed directly on" cannot possibly be correct in view of "the left and right skis are ***disposed on the frame via connection to the respective suspension arm***." AC simply cannot explain how "disposed on" means "placed directly on" when '847 patent claims recite that the skis are "disposed on the frame" ***via*** a connection to intervening suspension arms.

The only way that "a straddle seat disposed on the tunnel" can be harmonized with "the left and right skis are ***disposed on the frame via a connection to the respective suspension arm***" is if "disposed on" is construed to mean "arranged to be carried by" so as to permit the presence of intervening structure.

The USPTO understood "disposed on" to mean "carried by." In related Application 09/472,134, claims were pending that recited the nearly identical clause, "***a*** straddle seat ***disposed on*** the frame." JA003380-97. The Examiner rejected those claims, stating that "Yasui shows … ***a seat 14 carried by the frame*** …." JA003459 (internal citations omitted).

G. "the left and right skis are disposed on the frame via connection to the respective suspension arm."

Patent	Claims	Plaintiffs' Constructions	Defendants' Constructions
'847 Patent	9-10 & 12-15	"left and right skis are arranged so that they are carried by the frame via a connection to the respective suspension arms"	A claim in this patent with this claim phrase is indefinite in view of other constructions.

BRP's construction is consistent with the wording of the claim itself, with BRP's constructions of "frame" and "a straddle seat disposed on the tunnel," and with the text and drawings of the patent specification. The specification shows and describes how the skis are arranged so that they are carried by the frame via a connection to the suspension arms. *See* JA000020 (Fig. 20); JA000040 (9:62 – 10:3).

If the Court agrees with BRP, then in accordance with the consistency doctrine, it should construe the phrase "disposed on" to mean "arranged so that it is carried by"

wherever it appears in the claims, including "a straddle seat disposed on the tunnel" in the '847/'848 patent claims.

H. "Sub-frame"

Patent	Claims	Plaintiffs' Constructions	Defendants' Constructions
'847 Patent	9-10; 12-15	"a frame structure that interconnects left and right front suspension arms"	"a V-shaped structure forward of and distinct from the engine cradle"
'848 Patent	1		

Intrinsic Evidence

BRP's construction of "sub-frame" is directly supported by the claims themselves as well as the text and drawings of the specification of the '847/'848 patents. Claims 9-15 of the '847 patent and claim 1 of the '848 patent each recite that "the snowmobile further comprises left and right suspension arms pivotally connected to the sub-frame on respective sides of the sub-frame." *See, e.g.*, JA000043 (15:30-32), JA000237 (14:44-47). That means the "sub-frame" is "a frame structure that interconnects left and right front suspension arms," *i.e.*, BRP's construction.

The specification in discussing drawing Figure 17, reproduced below, states: "As illustrated in FIG. 17, ***sub-frame 294*** is an integral part of front suspension 110 and ***connects to left support arm 216 and right support arm 218*** through a number of brackets 318 connected at various locations on sub-frame 294."

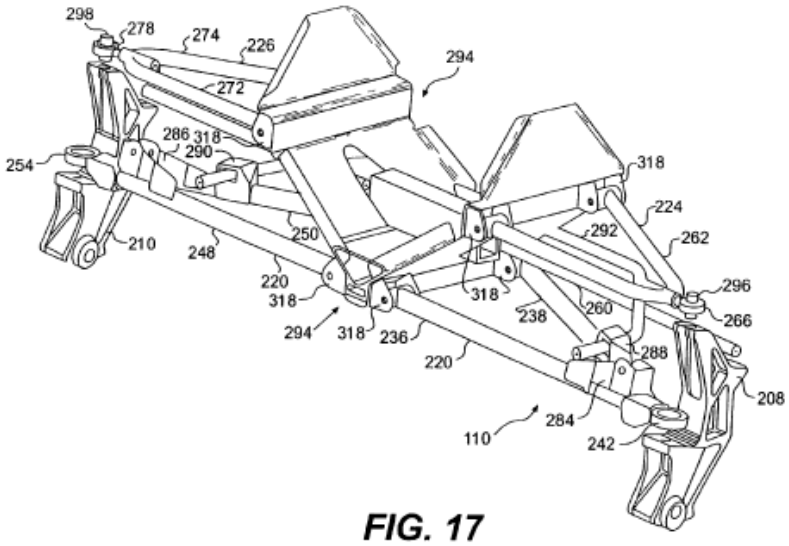


FIG. 17

JA000017; JA000041 (11:4-7). The specification uses "support arms" interchangeably with "suspension arms." *See, e.g.*, JA000041 (9:66-10:3) ("Left and right ski legs 208, 210 are movably connected to ***left and right support arms 216, 218***. ***Left and right suspension arms 216, 218*** include lower left and right suspension support arms 220, 222 and upper left and right suspension support arms 224, 226.")

I. "a drive track disposed below and supported by the tunnel"

Patent	Claims	Plaintiffs' Construction	Defendants' Construction
'847 Patent	1	"an endless track for propelling the snowmobile over snow that is supported by the tunnel and arranged so that its path of travel extends below the tunnel"	"drive track placed below and supported by the tunnel"
'848 Patent	1		

Intrinsic Evidence

The patent specification discloses that: (a) the drive track is and must be an endless track that travels in a continuous cyclical path; (b) the claims are limited to

snowmobiles for travelling over snow; and (c) the path of travel must extend both inside and below the tunnel.

a) Endless Track

The claims use the terminology "drive track" synonymously with "endless track." When the specification discusses what propels or drives the vehicle, it refers to an "endless track" no fewer than 13 times, but does not ever use the term "drive track." For example, the Abstract states: "An endless track is operatively connected to the engine and disposed beneath the tunnel for propulsion." JA000001. The detailed description states: "Snowmobile 22 includes an endless track 26 at its rear for propulsion." JA000038 (6:5-6).

b) Propelling The Snowmobile Over Snow

The claims are limited to automotive vehicles for travel over snow under various conditions. The preamble of every '847/'848 patent claim limits it to "a snowmobile." A snowmobile is an automotive vehicle that travels at least over snow.

The specification's Background discussion states:

> ***[S]nowmobiles are designed*** with frame assemblies and suspensions that easily absorb the shock of obstacles encountered on ***groomed trails and in deep snow.*** … [T]heir frame assemblies are designed to provide ***optimum steering and performance in snow, whether on groomed snowmobile trails (packed snow) or in ungroomed, off-trail areas (powder or natural snow)***.

JA000036 (1:49-57).

The specification's description of the "preferred embodiments" states: "***As with any snowmobile***, endless track 16 is operatively connected to motor (or engine) 18 ***to***

propel snowmobile 12 over the snow." JA000038 (5:45-48) Later on, it describes how the endless track works to propel the snowmobile across the snow. "Tunnel 86 is connected to a rear suspension 96 that contains a number of wheels 98 disposed on a slide frame 100 around which an ***endless track 102 rotates to propel snowmobile 22 across the snow.***" JA000039 (7:42-45)**.**

c) Arranged So That Its Path Of Travel Extends Below The Tunnel

To propel the snowmobile over snow, the endless track must contact the snow as it travels around its cyclical path. At the same time, the disputed clause expressly recites that the track is "supported by the tunnel." For both of these things to occur, the endless track must be arranged so that its path of travel (a) extends into the tunnel so that it can be supported by the tunnel and (b) extends below the tunnel so that it can contact the snow without interference by the side walls of the tunnel. This path of travel is shown in Figures 1, 2, 3, and 5 of the patent drawings. Figure 5 illustrates how the drive track is an endless track 102 (blue dashed lines) that travels in a path arranged[8] to extend from inside the tunnel to below the tunnel 86 (outline in red).

[8] The term "disposed," which is used repeatedly in the claims, obviously has its ordinary English meaning: "to put in place," "set in readiness," or "arrange." *See* JA0015016.

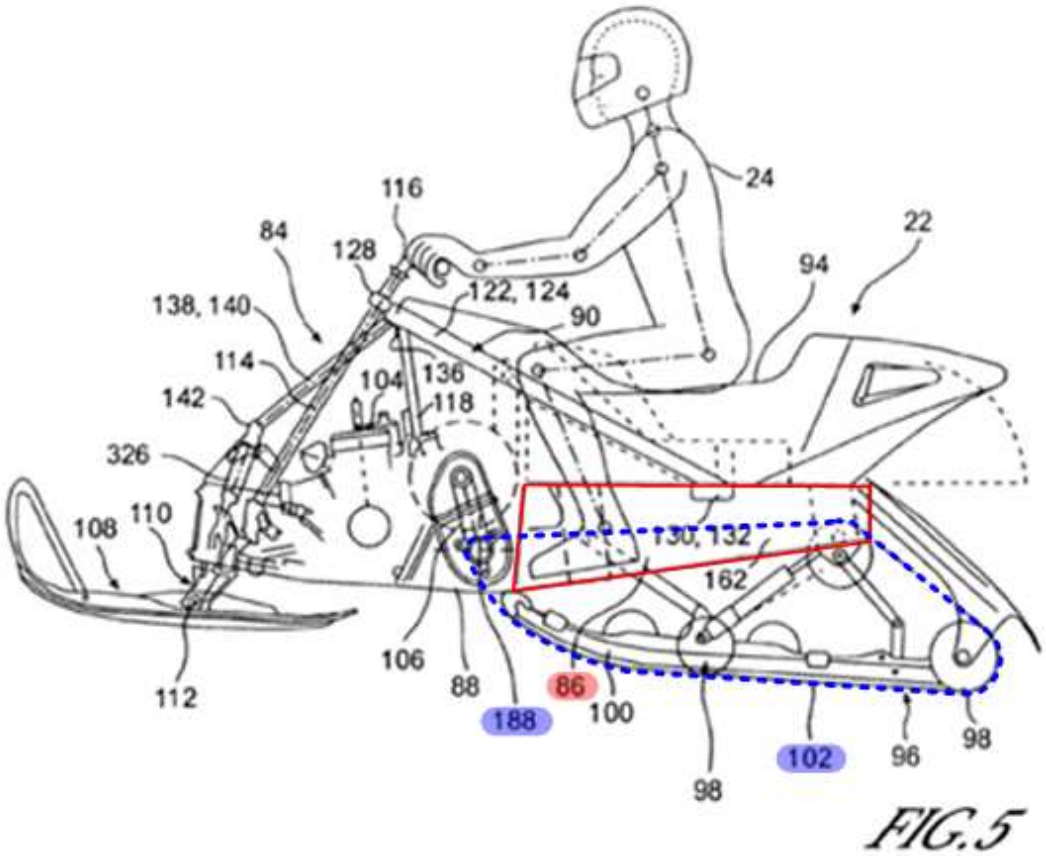


FIG.5

JA00007. The claim phrase "drive track disposed below and supported by the tunnel" is referring to the above-illustrated arrangement. The disputed phrase could not possibly mean that the drive track is placed completely below the tunnel. AC's construction is ambiguous in this respect.

J. "seat position defined by the seat"

Patent	Claims	BRP's Construction	AC's Construction
'669 Patent	80, 88, 97 & 124	"a portion of the straddle-type seat positioned beneath the center of weight distribution of a 50th percentile North-American adult male seated in a natural operating position on the snowmobile"	"a seat position differentiated from other seat positions by a structural adaptation on the seat"

The meaning of the phrase "seat position defined by the seat" is readily apparent from the intrinsic evidence bearing on the term "seat position" and its modifying clause "defined by the seat."

1. "seat position"

The '669 patent inventors acted as their own lexicographers to define the term "seat position" as the portion of the seat that supports the center of weight distribution of a standard rider.[9] *Phillips*, 415 F.3d at 1316 (inventor may act as lexicographer and define term used in patent claims).

> The seat 50 has a first seat position 52, which is defined as a portion of the seat 50 that is adapted to support a center of a weight distribution of the first rider 26 on the seat 50. … The inventors of the present invention define the term "seat position" to point out particular positions on the snowmobile that are adapted to function as the seat position for a standard rider.

JA000526 (5:36-45).

As highlighted in Fig. 2, seat position 52 is a particular portion of the seat beneath the rider's center of weight distribution, and does not include the entire seat surface contacted by the rider or refer to any contour of the seat surface. Fig. 2 also shows that the standard rider is seated in a normal operating position with the rider's hands holding

[9] The Board of Patent Appeals confirmed that the '669 patent inventors expressly defined "seat position" In its decision, the Board stated that "'seat position' has been expressly disclosed by the appellants (*e.g.*, see the first two paragraphs on specification page 8 as well as Figures 9 and 10 of the drawings) as particular positions on a snowmobile that are adapted to function as the seat position for a standard rider having specific dimensions." JA001109-10, n.1.

the handlebar grips, elbows and wrists slightly bent, and upper body leaning slightly forward such that the rider's center of gravity is at point 27.

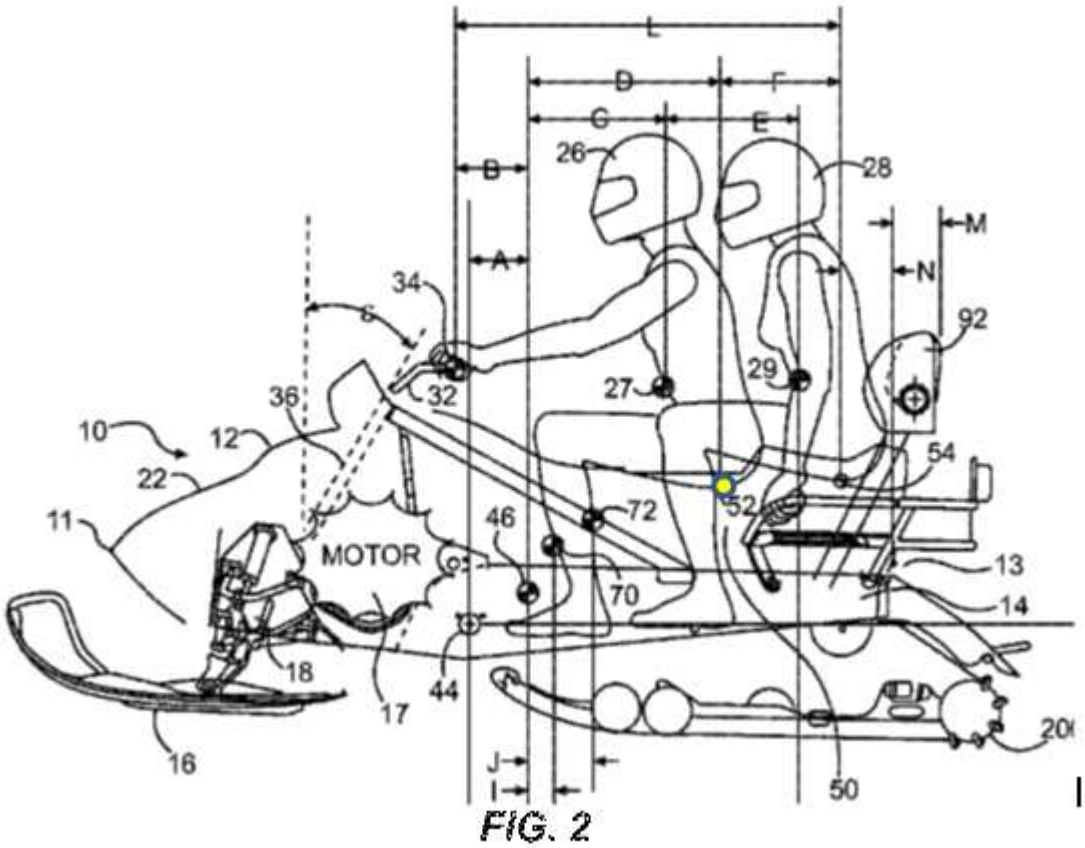


FIG. 2

The '669 patent inventors further defined "standard rider" as "a 50th percentile North-American adult male" who "weighs 78 kgs. and has the body build illustrated in FIGS. 9A, 9B and 10." JA000526 (5:48-56). Accordingly, it is clear from the intrinsic evidence that the '669 patent inventors specifically defined "seat position" to mean "a portion of the straddle-type seat positioned beneath the center of weight distribution of a 50th percentile North-American adult male seated in a natural operating position on the snowmobile."

2. "defined by the seat"

The meaning of the clause "defined by the seat" traces back to BRP's related '134 application, which preceded the '669 application. The Examiner rejected that application's claims under 35 U.S.C. §101 as encompassing non-statutory subject matter because certain terms, including "seat position," "were defined in relation to the human body" and, therefore, "improperly incorporates the user into the claimed combination." JA002571. The inventors responded by pointing out the following similar modifying clauses in the claim:

- "the seat defines" a seat position,
- "the steering device defines" a steering position, and
- "the footrests define" a footrest position.

They asserted this made clear that "seat position," "steering position," and "footrest position" are "defined in terms of the snowmobile" because the "seat, steering device and footrest are part of the snowmobile, not the rider." JA002606 (emphasis in original). The Examiner subsequently withdrew these §101 rejections.

Mindful of the §101 rejections in the '134 application, the inventors used the clause "defined by the seat" in the '669 patent claims to again make clear that the "seat position" is defined as part of the seat, not the rider. For this same reason, the inventors described the "seat position" in the '669 patent specification as being "defined by the seat," "defined as a portion of the seat," "defined on the seat," and "disposed on the seat." JA000524 (2:16-17, 2:39); JA000525 (3:1, 3:5); JA000526 (5:36-39); JA000527 (7:27,

7:57-58); JA000528 (9:15, 10:30, 10:41, 10:59-60); JA000529 (12:5, 12:17); JA000530 (13:51, 13:59-60).

Accordingly, the modifying clause "defined by the seat" simply means that the "seat position" is a portion of the seat itself. This is consistent with the '669 patent inventors' definition of "seat position" as the particular portion of the seat beneath the standard rider's center of weight distribution.

Date: December 19, 2014 Respectfully submitted,

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